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A window on emergent European social network analysis

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Abstract

This paper introduces the collection of papers in this issue, providing context in the recent development of social network analysis in Europe and the catalytic contributions of the Essex University Summer School and latterly the UK Social Networks Association. While these organisations have provided important focuses for social network analysis in the UK their reach has been much broader, principally among graduate students across Europe and the emergent research agenda they are forging. Five broad themes are identified in the collection: epistemic communities, policy networks, corporate networks, organisational networks and social network methodology. A brief social network analysis of citations from the papers in the collection is presented.

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Keywords: UK Social Networks Association; epistemic communities, policy networks, corporate networks, organisational networks; social network methodology.

The papers in this collection were presented at the 4th and 5th UK Social Networks conferences, held at the University of Greenwich in London, July 2008 and 2009. They are reflective of the renaissance in social network research in the UK and Europe, originating in or at least strongly influenced by the social network analysis courses within the annual University of Essex Summer School in research methods. Scores of young graduate researchers from across Europe have taken up Social Network Analysis as a central research tool as a result of these courses.

Out of the Essex summer graduates sprang the first UK Social Networks conference at Oxford University, from a desire to grow the stimulating field. This was followed by conferences at Leeds University, then Queen Mary College, University of London before the formation of the UK Social Networks Association in 2008. These activities provided an important catalyst to a new wave of social network analysis in the UK and beyond. Before this, social network research had largely comprised somewhat isolated efforts, principally around the work of Martin Everett at Greenwich and John Scott at Essex, inheritors of the pioneering work of the Manchester anthropologists in the 1950s and 60s: Barnes, Bott and Mitchell (Scott, 2000). The new wave became to gather critical mass in the UK with the formalisation of explicitly focused SNA research groups at Nuffield College, Greenwich and Manchester. With perhaps characteristic Anglo-centricity, this is, however, to overstate the generative role of the UK. Rather, this collection suggests that the UK's role in this renaissance is, again characteristically, more of an entrepot to the rich research streams of Europe.

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This collection centres on five broad themes: epistemic communities, policy networks, corporate networks, organisational networks and social network methodology.

A number of papers deal with the notion of epistemic communities. Gore critiques the notion of knowledge generation as a commodity exchange, arguing that collective collaborative activity is central to knowledge creation and dissemination and that this has important implications for university research strategies and engagement in epistemic communities. Piterou and Steward demonstrate the use of SNA in identifying emerging sociotechnical regimes. In a study of the Commercial Court in Paris, Rouchier and Tubaro employ agent-based modelling to examine the impact of selection of advisors on the formation of collective opinion. White and Christopoulos examine the way a public sector agency brokered a network of high-performing private sector firms to share knowledge, evidenced by increased email contact. Zappa and Mariani find evidence of different collaborative processes existing simultaneously among physicians considering the adoption of new drugs. Physicians under a lot of marketing pressure seek opinions from peers to confirm their own views, a form of approval-seeking closure. Physicians under less marketing pressure seek opinions from prominent colleagues and tend to follow their lead.

A second theme concerns policy networks, reflecting the strong European tradition in this area. Füg reviews the field and suggests that greater analytical specificity, in terms of policy subsystems and coalitions, is needed to advance on the somewhat modest insights gained from this research to date. Several examples of such an approach are provided by other contributors. Güell studies competing coalitions in the decision making on new management arrangements for Barcelona's El Prat airport. Lobina, Terhorst and Popov examine coalition structures and tactics among Latin American social movements resisting water privatisation. Sinclair measures changes to Mexican political networks in terms of their centralisation. Alcott and Christopoulos identify the critical brokering role of public sector agencies in regional innovation initiatives. Christopoulos and Ingold differentiate policy brokers from political entrepreneurs in policy networks through a discussion of their action and behaviour in a policy context.

A variation of the policy networks theme is the study of corporate networks. While ostensibly restricted to the field of business, corporate network literature focuses on the coalescence of the social and economic power of large firms, often with a political dimension, and so is something of an amalgam of the epistemic communities and policy networks themes. Comet and Pizarro's analysis of interlocking directorships among the 125 largest listed French firms finds bounded solidarity undermined by increasingly internationalised ownership. Cronin's survey of 25 years of literature since Stokman, Ziegler and Scott's (1985) *Networks of Corporate Power* finds an increasing accumulation of evidence of the performance effects of director interlocks and concentrations of elite power.

This overlaps with a fourth theme of networks in organisational performance. Łopaciuk discusses the contrast between bonding and bridging positions in organisational networks, finding combinations of these associated with team performance in financial institutions. Ferron, Massa and Odella find that despite the collaborative promise of Web 2.0 technologies, these tend to reinforce interactions among existing groups; new members are the source of inter-group brokerage. Domenech and Davis use SNA to analyse the characteristics of an industrial symbiosis network underpinning efficient material and energy exchanges.

Methodological contributions include Belloitti's comparison of Bourdieu's Field Theory and Social Network Analysis, the former attempting to map symbolic capital while the latter maps social power. Çarkoğlu and Cenker present limitations of the use of name generators in mass surveys, noting both practical limitations and demographic biases. Engel argues that corecipients of emails is a better indicator of common affiliation than Euclidean proximity. Sinclair champions use of a new power centrality index developed by Gil and Schmidt, applying this to Mexican political networks. Zappa and Mariani employ ERGM longitudinal techniques.

For social network analysts, the intriguing question immediately raised by a collection such as this is, what relationships exist among these contributors? Echoing the theme of epistemic communities, we offer a brief analysis of the citation network underpinning this collection using techniques of social network analysis (for further elaboration of this approach see Cronin 2008).

Figure 1 presents a visualisation of the network of citations by authors in this collection, in terms of outdegree, that is, citations of other works (Borgatti 2002). This is presented as a two-mode network with texts, often collaborative, represented as blue squares and individual authors as red circles; node size represents outdegree. The direction of the relationships is from author(s) to text(s) and from citing text to text. The picture is one of considerable homeogeneity with the major cited text being Wasserman & Faust (1994) and principal cited authors including Snijders, Bourdieu, Knoke, Krackhardt, Marsden, Laumann, Uzzi, Burt and Lezega; a somewhat more sociological emphasis than might be found in other continents.

Figure 2 presents the same network in terms of betweenness, emphasising additional texts such as de Nooy, Mrvar, & Batagelj (2005); Baumgardner, Berry, Hojnacki, Kimball, & Leech (2009); DiMicco, Millen, Geyer,

Dugan, Brownholtz & Muller (2008); Liebeskind, Porter, Zucker, & Brewer (1996); McPherson, Smith-Lovin & Cook (2001). The first of these is the Pajek software manual and the others reflect the strong policy network theme in this collection. But note too the methodological limitation here where multiple-authored texts attract higher betweenness.

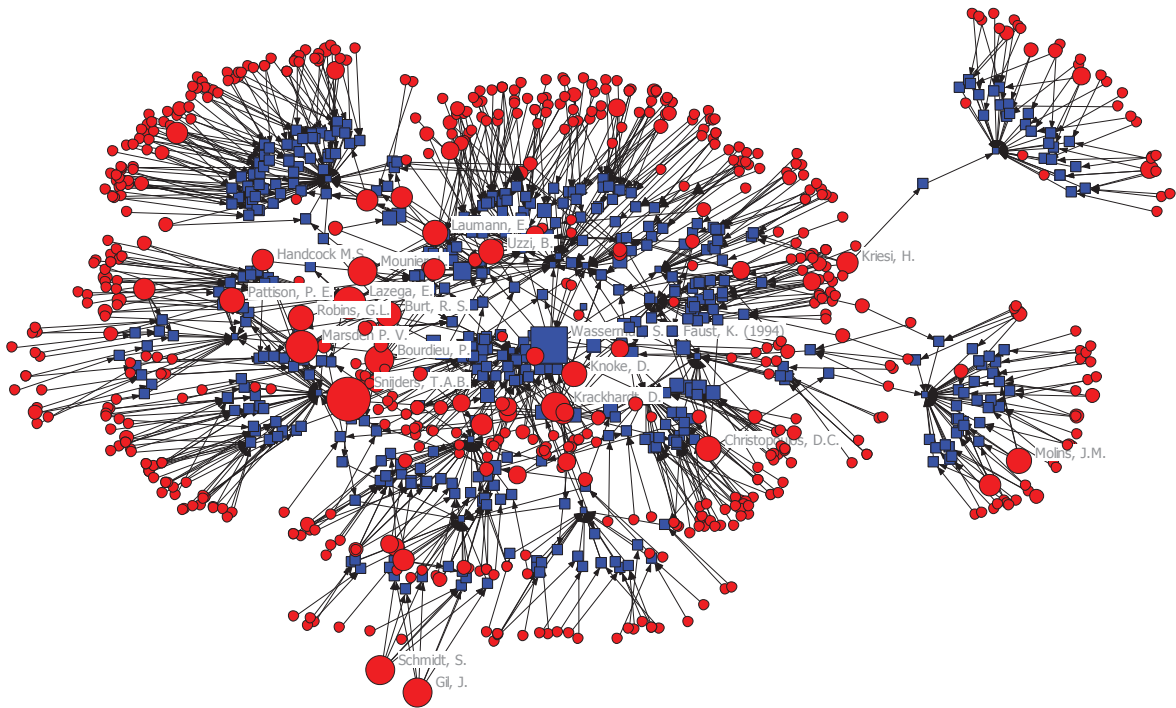


Figure 1. Citation network – principal nodes in terms of outdegree.

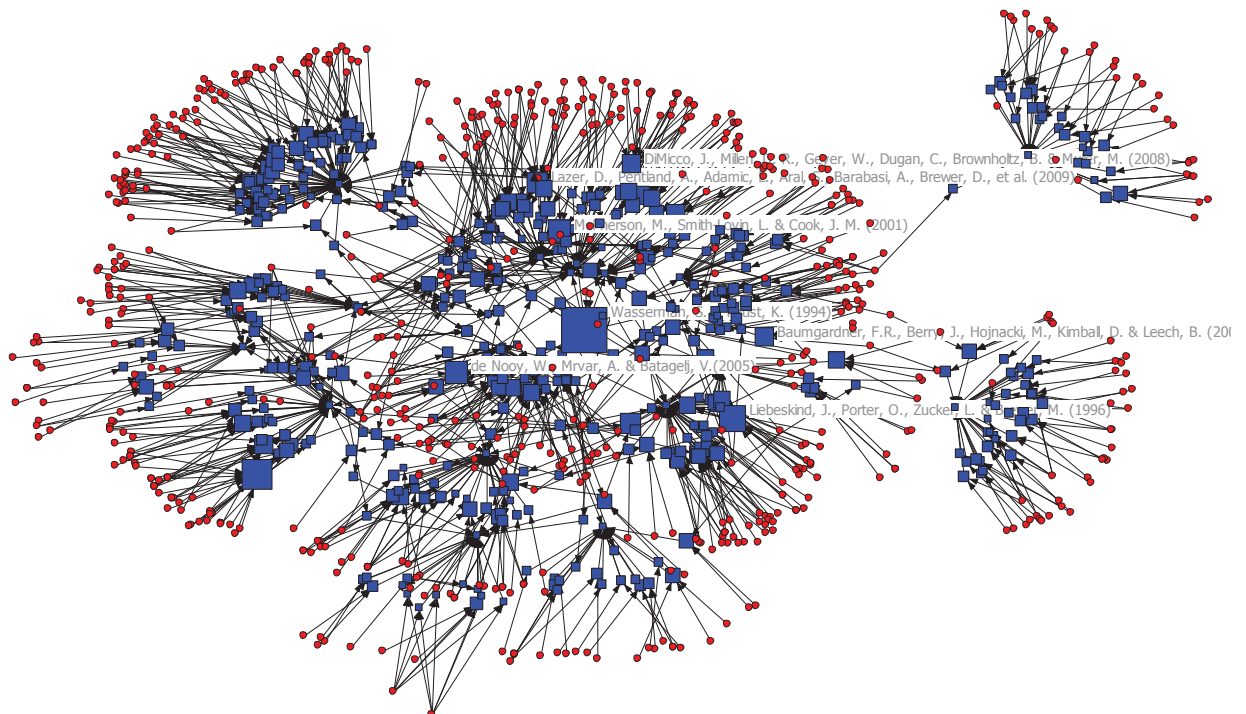


Figure 2. Citation network – principal nodes in terms of betweenness.

In summary, this window into SNA in Europe reveals a broad array of applications from a homogeneous sociological core that is characteristically continental. The core methodological texts are understandably central to these applications though Borgatti, Everett & Freeman (2002) is due greater prominence if more consistently cited. But given the complementary value of heterogeneity to innovation, perhaps the next time such a collection is evaluated in these terms, more small worlds will be apparent.

Finally, we would like to express our gratitude to the very useful comments and suggestions made on these contributions by, amongst others, the following reviewers: Guido Conaldi, Kate Coronges, Alan J. Daly, Riccardo De Vita, Mark Goodwin, Sara Gorgoni, Johan Koskinen, Antoinette St-Hillaire, Christian Stegglisch and Paola Tubaro.

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